## REMARKS

In the Office Action, the Examiner rejected claim 35 under 35 U.S.C. § 112, first paragraph, as a single means claim; rejected claim 46 under 35 U.S.C. § 112, first paragraph, for failing to comply with the written description requirement; rejected claim 46 under 35 U.S.C. § 101 as non-statutory; and rejected claims 1-17 and 35-46 under 35 U.S.C. § 103(a) as unpatentable over U.S. Patent Application Publication No. 2005/0249220 to Olsen et al. (Olsen) in view of U.S. Patent Application Publication No. 2004/0202192 to Galbi in view of U.S. Patent No. 6,738,378 to Tuck et al (Tuck).

By this amendment, Applicants amend claims 1, 35, and 46 to more clearly define the features of those claims.

Claims 1-17 and 35-46 are currently pending in the application.

Regarding the rejection of claim 35 under 35 under 35 U.S.C. § 112, first paragraph, as a single means claim, Applicants submit that the Examiner has committed a clear error as claim 35 is not in means plus function form and M.P.E.P. 2164.08(a) and *In re Hyatt* (which were relied upon by the Examiner) require the means plus function form.[1] Here, claim 35 recites a processor and does not recite means plus function language. Therefore, the rejection of claim 35 under 35 U.S.C. § 112, first paragraph, should be withdrawn.

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[1] M.P.E.P. 2164.08(a) states the following: A single means claim, i.e., where a means recitation does not appear in combination with another recited element of means, is subject to an undue breadth rejection under **35 U.S.C. 112**, first paragraph. *In re Hyatt*, 708 F.2d 712, 714-715, 218 USPQ 195, 197 (Fed. Cir. 1983) (A single means claim which covered every conceivable means for achieving the stated purpose was held nonenabling for the scope of the claim because the specification disclosed at most only those means known to the inventor.). When claims depend on a recited property, a fact situation comparable to *Hyatt* is possible, where the claim covers every conceivable structure (means) for achieving the stated property (result) while the specification discloses at most only those known to the inventor.

Regarding the rejection of claim 46 under 35 U.S.C. § 112, first paragraph, for failing to comply with the written description requirement, Applicants submit that the specification supports an *In re Beauregard* type claims. For example, the specification describes a storage device including software resident therein (see, e.g., paragraphs 0068, 0102, and 130-132). Therefore, the rejection of claim 46 under 35 U.S.C. § 112, first paragraph, should be withdrawn.

The Examiner rejected claim 46 under 35 U.S.C. § 101. Applicants respectfully traverse this rejection.

The Examiner alleges that claim 46, which is an *In re Beauregard* claim, does not define a computer-readable medium. However, the preamble of claim 1 recites " A computer-readable storage medium encoded with instructions that, when executed on a computer, perform a process." As such, the Examiner has committed a clear error by ignoring the express language of claim 46. Therefore, the rejection of claim 46 under 35 U.S.C. § 101 should be withdrawn.

The Examiner rejected claims 1-17 and 35-46 under 35 U.S.C. § 103(a) as unpatentable over Olsen in view of Galbi in view of Tuck. Applicants respectfully traverse this rejection.

Amended claim 1 recites a combination including, for example, the following features:

> allocating each received packet to at least one arrival queue;
> placing each packet in the allocated queue if said arrival queue is
> not full, otherwise dropping said packet;
> scheduling, by a scheduler coupled to the at least one arrival
> queue, packets from the arrival queue to at least one transfer queue;
> responsive to transfer of a packet to a transfer queue, generating
> an interrupt;

responsive to receipt of an interrupt, allocating the packet from said transfer queue to one of a plurality of processor queues;

placing the packet in the allocated processor queue if said queue is not full, otherwise dropping said packet; and

scheduling packets from the processor queues to be processed, wherein the at least one arrival queue, the at least one transfer queue, and the plurality of processor queues are separate queues, wherein the scheduler includes a first quantity N of inputs each corresponding to the at least one arrival queue, the scheduler further including a second quantity M of outputs each corresponding to the at least one transfer queue, wherein the second quantity M is less than or equal to the first quantity N.

In contrast to claim 1, Olsen describes a hierarchical traffic management

mechanism, which includes a classifier operable to identify and classify incoming traffic

streams and a queuing system. The queuing system further includes a plurality of

queues. The queues of the queuing system each include enqueue attributes configured

to control a depth of the queue and dequeue attributes configured to control scheduling

of the queue. However, Olsen, at best, merely describes a plurality of the same type of

queue 40 that feed the scheduler 38. FIG. 3 of Olsen is reproduced below.
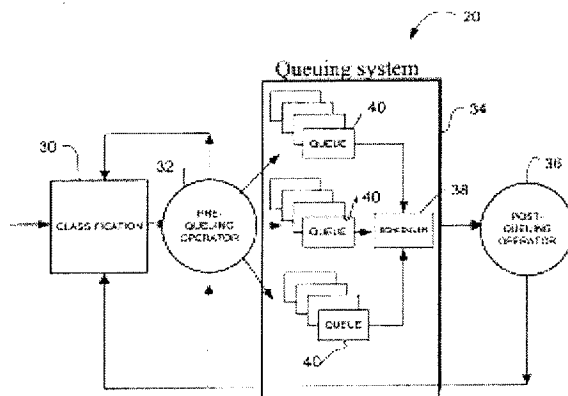


FIGURE 3

As such, the queues 40 of <u>Olsen</u> do not constitute different types of separate queues (e.g., arrival, transfer, and processor), nor are the queues configured as recited in claim 1. Therefore, <u>Olsen</u> fails to disclose or suggest at least the following feature of claim 1: "wherein the at least one arrival queue, the at least one transfer queue, and the plurality of processor queues are separate queues, wherein the scheduler includes a first quantity N of inputs each corresponding to the at least one arrival queue, the scheduler further including a second quantity M of outputs each corresponding to the at least one transfer queue, wherein the second quantity M is less than or equal to the first quantity N." Moreover, although <u>Galbi</u> and <u>Tuck</u> each disclose the use of queues, neither <u>Tuck</u> nor <u>Galbi</u> cure the noted deficiencies of <u>Olsen</u>.

In view of the foregoing, claim 1 is allowable over <u>Olsen</u>, <u>Galbi</u>, and <u>Tuck</u>, whether taken alone or in combination, and the rejection under 35 U.S.C. § 103(a) of claim 1, as well as claims 2-17 at least by reason of their dependency from independent claim 1, should be withdrawn.

Independent claims 25 and 46, although of different scope, include some of the features noted above with respect to claim 1. For at least the reasons noted above, claims 25 and 46 are allowable over <u>Olsen</u>, <u>Galbi</u>, and <u>Tuck</u>, whether taken alone or in combination, and the rejection under 35 U.S.C. § 103(a) of claims 25 and 46, as well as claims 36-45 at least by reason of their dependency, should be withdrawn.
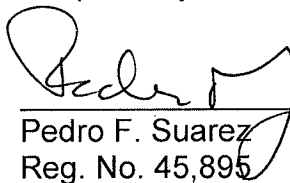
## CONCLUSION

It is believed that all of the pending claims have been addressed in this paper. However, failure to address a specific rejection, issue or comment, does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above are not intended to be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

No fee is believed to be due, however, the Commissioner is hereby authorized to charge any fees that may be due, or credit any overpayment of same, to Deposit Account No. 50-0311, Reference No. 39700-638N01US/NC40070US. If there are any questions regarding these amendments and remarks, the Examiner is encouraged to contact the undersigned at the telephone number provided below.

Respectfully submitted,

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